# REGIONAL TRAFFIC SAFETY NETWORK (RETSNET) – TRANSFER AND APPLICATION OF KNOW-HOW AND BEST PRACTICE IN ROAD SAFETY - A PILOT PROJECT IN SOUTHERN AFRICA

by

# Sigvard Tim\*

#### **ABSTRACT**

RetsNet is a pilot project concerned with technology transfer in the road safety sector. Five countries in Southern Africa are participating in the RetsNet project – Botswana, Malawi, Namibia, South Africa and Zimbabwe. The project is being carried out in co-operation between these countries and Sweden. The main purpose of the project is to set up and test a number of tools and methods to best communicate international know-how, for improving the level of safety in road transport. In particular, the project will make use of modern information technology tools.

Direct and efficient communication links are essential for successful road safety work based on technology transfer. By using the new IT-tools, the Internet, e-mail, etc., it is possible to establish such links without incurring high costs. One example of a cost-effective method tested in the project is distance education in the form of telematic teaching via Internet.

The project will propose the creation of a co-ordination competence centre, or virtual resource centre. This centre will provide a number of facilities to be used in transferring know-how in road safety from international to national and local level., e.g. expert support online and electronic conferences and a virtual market place for exchange of experience. The facilities will be available in an Internet-based network.

The project also involves the development of a methodology for analysis of the road safety situation in a country. Thus it will be possible to obtain a balanced picture of the situation and also to determine the current phase of development in the country. The methodology may also be used in a benchmarking process, to pinpoint the primary road safety problems and forecast the development in the coming years. In addition, it will form a base for proposing suitable accident countermeasures and evaluating the effect of various measures on road safety.

Sweden is able to claim a leading position in the field of road safety. The VTI<sup>ii</sup> has been active for some 15 years in a highly dedicated program of "hard knowledge transfer" of Swedish experience, based on organising international training courses in Traffic Safety Management. Activities are carried out by the VTI subsidiary VTI Development AB. Increasing demand for training and education has made it necessary to explore new methods of improving the technology transfer process.

.

<sup>\*</sup> Director of Information and Communications, VTI Development AB, Sweden

#### 1. INTRODUCTION

The road safety problem is a major problem that is increasing on a global scale. Every year, more than one million people are killed and - according to different estimates - at least 10 million and probably up to 30 million injured in accidents on the roads.

The level of road safety differs widely throughout the world. Contrary to the situation in most developing countries, many developed countries have succeeded in improving their level of road safety quite substantially by applying effective programs and countermeasures.

Worthwhile efforts to improve road safety entail a long-term process. But in countries with rapidly increasing traffic – i.e. most of the developing countries - it is possible to strengthen the competence of traffic safety professionals and achieve good results even in a short-term perspective by making use of international experience and know-how. Many ideas and good-practice solutions are worth examining for possible transfer, adaptation and implementation from one country to another.

It is also necessary to develop cost-effective procedures for this transfer of knowledge. The new information technologies open up a variety of possibilities that are explored in this project. One of the most interesting facilities is distance education in the form of electronic learning. Another major activity in the project is the development of a diagnostic system for monitoring and analysing the level of road safety in detail – a Road Safety Profile system.

#### 2. ABOUT THE RETSNET PROJECT

The project is initiated by VTI Development AB, a subsidiary to the Swedish National Road and Transport Research Institute (VTI) and is sponsored by the Swedish International Development Co-operation Agency (SIDA).

The purpose is to develop and test new methods for technology transfer of international traffic safety experiences which may then be transformed and implemented by instructors and teachers in the participating countries.

Which are the targets groups for the RetsNet-project? RetsNet deals mainly with education and training in the field of road safety and the aim is to support teachers and trainers in different countries at the local level. RetsNet offers an efficient means of providing the recipients with educational material, international experiences, expert advice etc. In the longer term the aim of RetsNet is to contribute to establishing a competent staff of road safety workers on all levels in a participating country. RetsNet will also make it possible to maintain an active and sustainable communication between international and local experts. RetsNet is a pilot project and the "test site" is Southern Africa. Together with Sweden, five African countries are participating in the project: Botswana, Malawi, Namibia, South Africa and Zimbabwe.

Working partners have shown a very active interest in developing further contacts with Swedish road safety expertise. Authorities and road safety professionals in the countries mentioned have previously participated in education and training organised by VTI Development, a subsidiary to the Swedish National Road and Transport Research Institute, (VTI). Training activities have most often been located in Sweden. There is now an increasing demand for training and education in road safety, both from these countries and from other regions of the world. This increasing demand has made it necessary to find supplementary or alternative, cost-efficient

methods for knowledge transfer. Current developments in information technology tools e.g. offered via Internet, have made it possible to explore and implement new methods.

For the actual project work we have established an International Steering Committee. The representatives are key persons in the organisational frameworks for road safety in their respective countries, e.g. from the National Road Safety Councils. Each country also has a National Steering Committee with members nominated by the country representatives. Members of the national committees represent those major organisations and interests in the country concerned with road safety. Examples are central governmental bodies, regional and local authorities, the traffic police organisation, NGO's, etc. We have also established a Reference Committee with representatives on the ministerial level to supervise the project.

The project started at the beginning of 2000, and will continue until December 2001, when the results will be evaluated.

#### 3. ROAD SAFETY AND THE NEED FOR TECHNOLOGY TRANSFER

The underlying reason for this project is the road safety problem. Statistics from the World Bank and other bodies show that every day almost 3000 people are killed in road accidents throughout the world. Of these, approximately 1800 are pedestrians and 600 children.

The road safety problem is not only global but is also increasing, especially in the developing countries. More than 70 per cent of road fatalities occur in developing countries and countries in transition. In terms of traffic risk – the number of fatalities in relation to the volume of traffic – African countries show the highest figures.

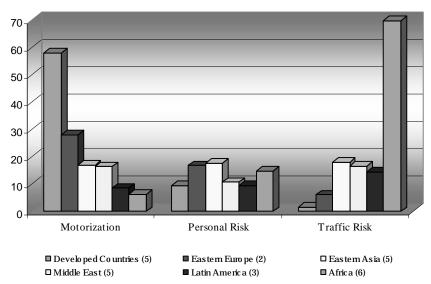


Fig.1. Motorization, personal risk and traffic risk in different regions in 1995(1) Examples from a selection of countries. Motorization: vehicles per 100 inhabitants, Personal Risk: fatalities per 100 000 inhabitants, Traffic Risk: fatalities per 10 000 vehicles.

Road safety is a rapidly growing problem in most developing countries, mainly because of increasing motorization. There is a strong relationship between the number of cars, traffic volumes and traffic accidents in a country.

While developed countries in general have succeeded in checking and even reversing the annual number of road accident fatalities, the number of fatalities in most of the developing countries

will continue to increase dramatically with growing motorization, unless effective remedial actions are taken.

The problem of road safety has a significant impact on society. Injuries and fatalities on the roads involve extremely high losses both in terms of human life and in resources for hospital treatment, etc. Males in the economically most active age range constitute the largest group of reported victims. In the developing countries, the costs to society as a result of road accidents may be as much as 2-3 % of GNP.

The mechanisms controlling the development of traffic and road safety share many common features in every country, although the solutions may vary greatly between different parts of the world. This is due to differences in culture, geographic structure, infrastructure, social structure, economic conditions, history, etc. The difference in road safety between the countries with the highest level, e.g. Sweden, and those with the lowest level, may be as large as 1:200, expressed in the number of fatalities per vehicle.

The problem of road safety is also related to other problems in society. Today, it is generally recognised that road accidents constitute not only an economic problem, but also a social problem, as well as an increasing health and environmental problem. In view of the high accident risk among vulnerable road users, with the highest proportion of poor people, road accidents can also be considered to be a poverty problem.

There is an obvious and urgent need for countermeasures that can improve the road safety situation in the developing countries.

The fact that some countries have been more successful than others in road safety management have makes it worthwhile to examine the countermeasures that have been found effective and possibly to transfer, adapt and implement similar measures in other countries.

Although improved road safety requires a systematic approach in the long-term, it is possible to make progress also in the short and medium term. This, by applying previous experience, which requires access to international best practice and know-how. It will thus be possible to avoid the same mistakes that others have made and to avoid steps that are inefficient or sub-optimal.

A great number of sources with documented knowledge of efficient road safety countermeasures are available internationally. Road safety experts may offer both basic and advanced knowledge from developed countries. But this knowledge must be presented in a processed form that can be used and implemented according to the current conditions. Processed knowledge and education have to be tailor-made. Experience from other countries in the same region and on the same level of motorization is also important for a nation during a build-up phase, aimed at improving road safety.

In many cases, what is needed is the well-planned application and adaptation of knowledge to different local conditions. To achieve this, it is necessary to have a strong local involvement from authorities and other organisations. Such involvement requires knowledge of the relations between transport and social development, and of ways of achieving improvements in road safety.

# 4. T<sup>2</sup> INITIATIVES IN THE RETSNET PROJECT

The measures and techniques for technology transfer applied in the RetsNet project, may be presented under two major headings: **Information dissemination** and **Distance education**. In both these concepts, the project will utilise facilities and tools made available through the new information technologies.

# 4.1 Information Dissemination

The focal point for information dissemination and exchange in the project is the Internet website - www.retsnet.com. The website is designed as a portal for access to a number of facilities and services on various levels in the project.

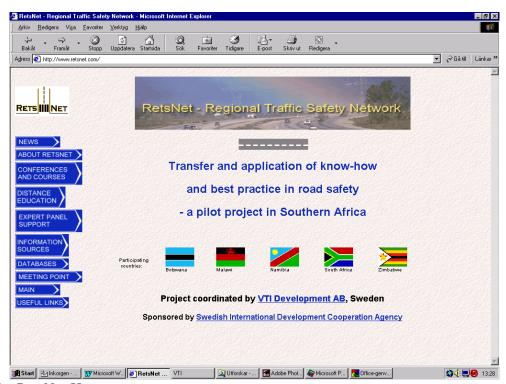


Fig. 2. The RetsNet Homepage

The website is a news channel for project activities and includes a newsletter - RetsNet News - for disseminating project information to a wider audience. The project representatives are invited to use RetsNet News for reporting on current road safety issues, problems and solutions and also to announce forthcoming events of general interest. RetsNet News is also published in a paper version and is distributed via the National Steering Committees for the project.

At the same time, the RetsNet website is the access point to the electronic learning platform for distance education, presented below, and is also prepared to provide a virtual meeting point for information exchange. Some parts of the site are restricted to project participants during the project. Access to the distance learning facilities is restricted by means of personal user names and passwords.

#### **4.1.1** Structured access to information sources

One of the main features of the site is the structured access to information sources on the international level in selected road safety sectors. Internet provides an overwhelming number of information sources. By using the different search engines available, users will be able to find information on almost every subject – including road safety. An additional advantage of Internet is that more and more material such as reports, articles and other texts is available in full format and can easily be downloaded to PC - a print-on-demand service. Access to full documents is very much requested by users in the countries concerned.

However, one of the difficulties when using Internet, is to limit the search in order to find the most relevant and reliable information. This is quite difficult even for experienced Internet users. Many of the traffic safety professionals in the countries participating in the project have little or no experience from using Internet or computerised information retrieval. Even when sources are found, it is difficult to choose and evaluate the usefulness of the source.

Here, RetsNet makes a contribution to quick and easy access by selecting and recommending sources of high quality and current awareness. These sources are made available in a structured access under specific topics. During the running time of the project it has been necessary to focus on certain sectors of the road safety problem complex. The participating national delegations have pointed out the major safety problems in their countries – problems that they have in common. These are speed and speed management, drinking and driving, pedestrian safety and overloading of goods and passengers.

A number of different information sources on the international scene will be available - databases of different kinds, links to organisations presenting well-organised facts, statistics, research findings, reports, news etc. Special attention will be devoted to sources presenting experience of efficient countermeasures in road safety, examples of best practice and e.g. proposals for low-cost solutions. Possibilities of transforming and implementing such countermeasures in the participating countries are of particular interest.

It is very important that such a gallery of information sources is maintained and frequently updated. Internet is a medium constantly in transition and new facilities are being added all the time, while other sources are deleted for various reasons. The evaluation to determine which sources to recommend as useful includes aspects of easy access, good structure and design, accuracy, currency, trustworthiness and user-friendliness.

# 4.1.2 Question and answer services - FAQ database

A planned project activity that is closely related to access to information sources on the Internet, is expert panel support. The concept is that specialists in certain areas will be available for contacts via the RetsNet website for question-and-answer service, advice and support. Eventually this may lead to discussions and agreements on consulting services and co-operative project activities.

One step in the direction towards such expert support is the creation of a database with ready-made answers to frequently asked questions, FAQ. These FAQ's will be available under a number of subject headings. Answers are presented on various levels. The first level is a summarised format with basic information, facts and statistics. Text information is supported by illustrations, diagrams and tables. The further levels include links to more in-depth sources, state-of-the-art-studies, educational material, etc. The database of FAQ is available via the RetsNet website and will be updated gradually.

The final contents, design, presentation and accessibility of the knowledge base will be decided at a later stage of the project.

#### 4.1.3 Conferences and seminars

Traditional conferences, face-to-face seminars and meetings should, of course, not be forgotten. They are critical for information dissemination and exchange of experience. Supporting such events in various ways in the Southern African region is also a part of the RetsNet initiative.

VTI Development has long-term experience from organising international and national conferences and seminars. The most evident example is the international annual conference "Traffic Safety on Two Continents", recently expanded to "Three Continents", last held in September 2000 in Pretoria. The papers presented at these annual conferences are at the forefront of R&D in road safety. The conference proceedings are an important source of information for the information dissemination process in the RetsNet project.

A regional conference of this type is also an example of a knowledge transfer activity that may be supported within RetsNet. Furthermore, RetsNet offers support to national and regional initiatives, e.g. with participation of Swedish expertise. Also in this area, virtual meeting places may be offered as an alternative and a complement to conventional meetings.

# 4.2 Distance Education via Electronic Learning

One of the most interesting and exiting parts of the project is the test activity with distance education using the new IT-tools available, preferably via Internet.

Distance education with current and evolving information technologies – electronic learning – is a highly cost-effective way of providing qualified education. Key technologies are telecommunications, computer technology, graphical user interfaces and the World Wide Web. The use of distance education is increasing rapidly due to advances in these tools.

Electronic learning has many advantages. It offers education independent of time and place. For example, it also enables a person to study while continuing in regular employment. This is particularly favourable in education for professional organisations and their personnel who form the particular target groups in the project.

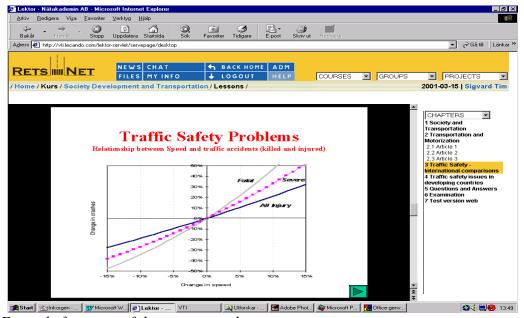


Fig 3. Example from one of the test course lessons

There is considerable interest among project participants in the distance education tools and their potentials and we are exploring the possibilities of applying them in the road safety sector. The system we have chosen will make use of the interactive facilities available on Internet and will be accessed via the RetsNet website.

The system primarily being used for development and tests in the project is called Lektor - a platform for web-based training. Lektor was originally developed within the Royal Institute of Technology in Stockholm, Sweden. It has been used by companies, universities and schools since 1996. A specific Lektor user interface has been designed for the RetsNet project.

Any type of multimedial information may be used in the Lektor system. As long as the material may be handled by Internet, it can also be used in Lektor, e.g. video, sound and graphics animations. The RetsNet applications will initially be limited mainly to texts and graphics material but more advanced files requiring specific plug-in programs in the PC may be tested at a later date.

In principle, three types of e-learning activities are being tested and evaluated in the project – courses group discussions or interactive seminars, and co-operative projects.

#### **4.2.1** Courses

Courses contain educational/training material, quizzes and evaluations. There are excellent opportunities to organise and design the content according to the preferences of the author/teacher. Text and graphics, as well as animations, video clips, sound etc. may be used and links to Internet information sources and reference files in full format can easily be created.

# **4.2.2** Group discussions – interactive seminars

This facility is used for online information exchange via the Internet. Such exchange may consist of a real-time discussion where group members are logged on at the same time, as a seminar, or it may be a discussion forum on a particular issue, which is kept open for a longer period of time.

# 4.2.3 Co-operative projects

The "Project" facility offers a possibility for common file storage and exchange. Files can be handled in different version and protected on various levels. This feature enables co-operation between participants, e.g. on a common international project. A project may be initiated by any person with access to the system and colleagues from other countries or regions may be invited to take part as members of the project team.

#### 4.2.4 Supportive tools

There are a number of supportive tools available. "Forum" or "News" is used for communication between course participants and tutors, as well as between the different members of a project. There are specific forums for each course, discussion group or project.

"Chat" offers real-time discussions via the Internet, based on text. It is global and is available to any user. Private chat is also possible. Chat is supported by a white-board which allows graphics to be entered for common display.

For teachers and training course administrators, Lektor offers efficient tools for producing course material both online and offline. The system includes support for interactive tests (self-tests, pretests) and examination procedures, as well as course evaluation and statistical analysis.

In terms of technical requirements, it is only necessary to have a connection to the Internet in order to use Lektor. The system is operational both with Internet Explorer and Netscape

Navigator browsers. Lektor is also server- and client independent. Users can access the system with PC or Mac. No particular plug-ins are necessary unless multimedia files are used.

#### **5.2.5** Alternative offline tools

There is a need to explore alternative tools to the Internet-based platforms. The reason is quite simply that access to the Internet in some regions is still too limited, connection lines too slow and unreliable, etc. Even though the situation is improving rapidly, options need to be examined.

Consequently, the project has prepared CD-versions of training courses to be tested in parallel with the Internet-versions. The CD versions are very similar in structure and design to the Internet versions. The major difference is, of course, that the quick and easy interactive online communication on the Internet between student and teacher, as well as among students, will not be available in the CD-versions. The web-based system may naturally also be used offline when required. Study material may be downloaded to the users PC for further use locally.

#### 5. ROAD SAFETY PROFILES

A major part of the project is the development of a database system and a methodology for analysing the road safety situation in a country or a region – Road Safety Profiles.

With the Road Safety Profiles it will be possible to obtain a balanced picture of the status of road safety. The methodology can be used in a benchmarking process, to pinpoint the primary road safety problems and to forecast development in the coming years. It will also be a useful base for proposing suitable accident countermeasures and evaluating the effect of such measures on road safety.

Accident statistics provide the basis for analysis and action concerning road safety. However, they suffer globally from various shortcomings, the most predominant being under-reporting. Traditional accident statistics are for a number of reasons biased to a certain extent and are more or less unreliable in every country. It is therefore necessary to collect and compile other data on traffic safety as well as general basic data and information on legislative and institutional issues.

The project will set up a database that covers both official traffic accident data and certain "soft data" termed Performance Indicators, (see below). The data will be collected from the responsible authority of each member country.

Why create Road Safety Profiles and what will they look like? The Road Safety Profile model is presented here with answers to a few questions:

# 5.1 Is it possible to compare the road safety situation in various countries?

No, not straight off. For many reasons, such a direct comparison does not provide a correct picture. Not even the definitions are equal, e.g. the definition of a fatality in a road crash. Depending on which specific measures we decide to compare, we arrive at different results. Countries also have different basic conditions such as the level of motorization (number of vehicles per inhabitants).

# 5.2 Why is it interesting to compare the road safety situation in various countries?

Because one of the primary sources for learning is to learn from each other - through success as well as failure. We can make comparisons not only of measures and problems but also strategies

and trends. This process is called benchmarking - in other words using a successful country as a model for possible action in another country.

# 5.3 What should we do to be able to compare the road safety situation in various countries?

As always we should use traditional accident, injury and fatality statistics – so called direct road safety measures. But that is for many reasons (reliability, quickness, causes, diagnostic value etc) not enough. We also need to use a number of other information sources - so called indirect measures or performance indicators.

# 5.4 What is a road safety performance indicator?

This is an indirect indicator of the state, condition or level of road safety. It is often a measure of road user behaviour (e.g. speed, use of seat belts, helmets, alcohol etc), but it could also be other indirect measures of the state of road safety, such as road safety organisation, traffic safety programs, legislation, police, roads, vehicles, education, traffic measurements etc.

#### 5.5 How will the road safety profiles be described?

The countries will be divided into three different groups depending on their level of motorization - low, medium and high. We will be using two direct road safety measures (personal risk: fatalities in relation to population and traffic risk: fatalities in relation to traffic volume or number of vehicles). In addition we will be using 27 indirect road safety measures, or performance indicators.

For each country, depending on the level of motorization, each measure will be normalised on a scale from +2 to -2. These figures will be illustrated graphically as a profile making it possible to identify the major road safety problems in the country (e.g. inadequate law enforcement, education, legislation, organisation, etc).

Level of Motorization: Low Country Country 1 Country 2 Country 3 -2 -1 0 +1 +2 -2 -1 0 +1 +2 -2 -1 0 +1 +2 **Direct Safety Measures** Public health consequences "Personal Risk" System safety of road traffic "Traffic Risk" **Indirect Safety Measures** Road safety Road safety statistics measurements safety trend (absolute no. of killed) N.A. Road safety Ft&D Organisational Road safety crganisation structure Road safety program Road safety legislation Traffic police

Fig. 4. Example of how road safety profiles will be presented:

etc.....

(N.A. indicates that data is not available)

The road safety profile for a country shows the value of each measure in relation to the average value for a number of countries on the same level of motorization. We will also sum up all these measures in a way that yields a road safety classification of each country in a single measure or index. From the index we will get a general value for the road safety situation in a country. At the same time, the profile will make it possible to analyse the reasons and causes underlying the present road safety situation. With the aid of the approximately 30 variables, we will be able to penetrate even deeper in the analysis.

We believe that the Road Safety Profile will be a valuable tool for raising political awareness of the problem, for monitoring and making a detailed analysis of the road safety situation and the weak and strong sectors, and as a base for timely and cost-beneficial countermeasures.

The Road Safety profiles tool is also to be seen in the context of technology transfer - as a tool for identifying the sectors where actions are most urgently required. When it comes to countermeasures, there is an obvious link to the international know-how that will be made available through the project activities. Such countermeasures must then be evaluated nationally/locally by the local experts to make sure that measures are possible and worthwhile to implement for reasons of economy, social structure, attitudes, public opinion, etc.

# 6. EXPERIENCE SO FAR AND RECOMMENDATIONS

This project is still in progress and scheduled to continue in its present form until December 2001. Final conclusions and recommendations thus remain to be formulated. But our experience from the project so far may of course be summarised and discussed.

A general comment is that participants are very positive to the activities launched, especially the electronic learning tools and the potential of the Road Safety Profiles model. Also the improved availability of documentation material on the international level is appreciated.

Some concern has been expressed regarding the level of the services being developed and the possibilities of utilising these services in practice. And it is a fact that the problems we have encountered so far are mainly of a technical nature. In some of the countries the telecommunications structure is still insufficient and access to Internet is limited. But the situation is improving rapidly in this sector and we have experienced progress even during the project. Offline versions of the project's Internet-based services are being developed as alternatives.

Another matter of concern is the lack of adequate technical equipment and resources. Possible support for upgrading of equipment is therefore discussed on a selective basis in the project.

It might be expected that lack of experience in using IT-tools would be a major obstacle in the project. On the contrary, we have a very positive experience in this respect. Although some basic training in the handling of the PC and programs has been necessary, participants have picked up the concepts of the new tools very quickly. After one or two days of training, they have been able to fully use the facilities, such as those used in electronic learning.

Comments on the development of the Road Safety Profiles model are mainly focused on the gaps in available national statistics, the reliability of data and the interpretation of "soft data" (performance indicators). Checking and verifying available data from each country is performed via the National Steering Committees. This procedure is critical before the model is presented in

detail to a wider audience and the specific target groups - politicians, decisions-makers etc. It is also necessary to work out a strategy for marketing and implementation of the model, once it is ready for presentation.

Experience from the electronic learning tests is very promising. On-line interactive seminars e.g. with participants in Sweden and South Africa in real-time discussions have been performed successfully. There is also positive experience from test with various types of courses. It will be possible even in the short-term perspective, during the remaining project period, to run regular courses on a trial basis with traffic safety officers – the actual target group. The first "live" activity of this kind is provisionally planned for October this year.

Recommendations on implementation of the various project products will be possible later his year and marketing efforts will be enhanced. It will then be necessary to involve the national committee network in a more highly integrated way.

# 7. MOVING ON FROM RETSNET - APPLICATIONS

How can the RetsNet project contribute to a better safety situation in the future?

The objectives of RetsNet have been presented - to create a cost-effective technology transfer of international experience in the form of both tailor-made and standardised education and training, as well as the transfer of research results and best practice. The intention is to make use of the new IT-tools.

Many traditional activities in technology transfer, such as training courses staffed by road safety experts - either in Sweden or in the country concerned - are fairly expensive. It is also necessary to limit the number of participants in such courses. In addition, there is a risk that activities will not be sufficiently followed up and supported afterwards. The activity may thereby become an isolated event with less impact than expected.

#### **6.1** Virtual Resource Centre

We are looking for sustainable solutions. The new information technology offers new possibilities for performing continuous follow-up and support in a completely different way than before. We are therefore proposing the creation of a virtual resource centre, or co-ordination competence centre, in road safety.

The centre will continuously scan the international traffic safety environment, evaluate new results – if they are of special interest to the RetsNet group – create standardised and tailor-made training programmes, take initiatives in local events such as courses, conferences, etc., and participate in these.

The centre will provide a number of facilities and tools to be used in transferring know-how in road safety, e.g. expert support online, electronic conferences, distance learning courses and access to information sources. The facilities will be available in an Internet-based network with a website as a focal point. The website will offer structured access to requested sources and services. The virtual resource centre will also maintain a database with statistical information on traffic and society for each country.

Scarce resources and an inefficient telecom infrastructure in regions and countries, makes it necessary to find tailor-made solutions for knowledge transfer. One concept to be developed in

the project consists of national focal points through which education and training can be coordinated. Technical resources may be shared and the national centres will form part of a network supported from the virtual resource centre. Example of such focal points to be discussed are university institutions or other organisations with focus on either educational issues or road safety activities in an existing national structure.

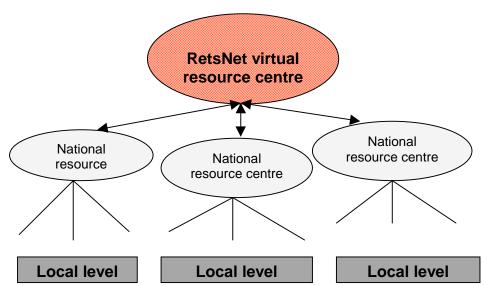


Fig. 5. Proposed network structure

#### 5.2 Can RetsNet contribute to an extended impact for improving traffic safety work?

It may be possible to implement many of the ideas, methods and tools tried in RetsNet in other countries in the region or around the world. Road safety problems are in many ways similar in all regions. Experience from RetsNet will be useful in extended activities of this type.

The Road Safety Profile model has also been developed in such a way that it may be used in any country of the world to monitor and evaluate the road safety situation and focus on the most serious problems. It will also be possible to follow traffic safety development in a country over time.

There is a great potential market for expanding RetsNet project activities to other regions in order to promote road safety.

#### REFERENCES AND SOURCES

1. Dr. Kenneth Asp, VTI Development AB. RetsNet working material and other contributions, 2000-2001

- 2. Ghazwan Al-Haji, Traffic Safety in Developing Countries, New approaches in technology transfer by using distance education technique, Linköpings Universitet, Campus Norrköping, 2001
- 3. Prof. Kåre Rumar, VTI Development AB. RetsNet working material and other contributions, 2000-2001
- 4. RetsNet News No.1-3: 2000. VTI Development AB, 2000
- 5. RetsNet Presentation 2001, a Multi-media CD presentation, VTI Development AB, 2001

The project is co-ordinated by VTI Development AB, a subsidiary of the Swedish National Road and Transport Research Institute (VTI) and is sponsored by the Swedish International Development Cooperation Agency, (Sida).

Swedish National Road and Transport Research Institute (VTI) and is sponsored by the Swedish International Development Cooperation Agency, (Sida).